

Remarks/Arguments

In an Office Action dated February 8, 2007, claims 1, 2, 7, 12, 18, 22, 23, 28, 37, 41, 42, 47 and 53 were rejected under § 102 as anticipated by Crockett (USP 5,619,644); claims 3-6, 24-27 and 43-46 were rejected under § 103 as being unpatentable over Crockett in view of Banks (US 2005/0018619); claims 16, 17, 36, 57, and 58 were rejected under § 103 as being unpatentable over Crockett in view of Ofek (USP 5,901,327) and claims 8-11, 13-15, 19-21, 29-35, 38-40, 48-52, 54-56 and 59-61 were allowable. Applicants request reconsideration in view of the remarks below.

Section 102 Rejections

Claim 1

Claim 1 was rejected over Crockett. Applicants respectfully traverse the rejection.

Crockett relates to a system for collecting failure information in a distributed system. To that end it defines a new command DIAGNOSTIC STATE SAVE used to cause each relevant unit to perform a dump to capture failure information, which is then later collected and correlated. The underlying system in Crockett is performing fault tolerant operations by performing journaling operations (see col. 7, lines 26-29) but those journaling operations are independent of the DIAGNOSTIC STATE SAVE command and operations resulting from that command.

The Office Action first equated the secondary host 111 receiving control and data from the primary host 101 to the first element of claim 1, as the required receiving a first message from a commit master. This would indicate that the Office Action has equated the commit master as being the primary host. Applicants here note that the claim requires receiving “a first message.”

The Office Action next assumes that there is an error somewhere in the system. This error is detected as indicated at col. 10, ll. 45-67 and the Office Action equates this to the claim requirement of detecting a loss of the commit master. Applicant here notes that the response in Crockett to such loss or error is for the primary data mover, a portion

of the primary host 101, which is equated to the commit master, the element required by the claim to be lost, to issue a DIAGNOSTIC STATE SAVE command. Thus the Office Action would have the lost device issuing the command.

The Office Action then equates col. 10, ll. 62-66 as meeting the claim requirement of resending the first message. Applicants traverse this point. Col. 10, ll. 62-66 only indicates that the DIAGNOSTIC STATE SAVE command is sent to and received by the secondary host. This is not resending the first message, the first message being sent in the first claim element as discussed above. This command would not be sent prior to the error detection because, as noted in col. 9, ll. 57-60, when the error is detected the environment is frozen. There could then be no error to detect as the system environment is frozen. The DIAGNOSTIC STATE SAVE command would only be sent after the error detection. Thus it cannot be the first message which is resent, as it was not previously sent. Further, the DIAGNOSTIC STATE SAVE command is sent by the primary host, equated to the commit master in the claim. But the claim specifically indicates that the commit master is lost so it could not resend the first message as it is lost.

The Office Action then equates the message to data and control updates from col. 10, ll. 45-60. First, this assertion conflicts with the equating of the resending being the operation of sending the DIAGNOSTIC STATE SAVE command as done by the Office Action in the prior portion of this element. Thus the Office Action is itself inconsistent, a clear indication of the improper nature of the rejection.

Second, as discussed above, the first message cannot be the DIAGNOSTIC STATE SAVE command. Assuming arguendo the first message is the record updates mentioned in col. 10, ll. 45-60, these updates would not be resent after an error according to Crockett, as Crockett indicates the system environment is frozen and the DIAGNOSTIC STATE SAVE command is sent after the error, thus effectively shutting the system down.

Therefore both assertions for equating to the first message of the claims are erroneous. Thus the rejection is improper and must be withdrawn.

The Office Action closes with analogizing aborting the update operation with col. 10, l. 62 to col. 11, l. 3, which is nothing more than a restatement of col. 9, l. 55 to col. 10, l. 4 where the issuance of the DIAGNOSTIC STATE SAVE command is described, the environment is frozen and then each device collects failure information. The Office Action apparently equates the record updates as the first message but this contradicts the claim requirement that the update operation is aborted only if the message did not include update data, as the message apparently defined by this portion of the Office Action is the update data. Therefore this portion of the Office Action is also erroneous, yet a further reason the rejection is improper.

Applicants thus submit that the rejection is improper for many reasons and should be withdrawn.

Claim 22

As a first point, the arguments of claim 1 apply equally to claim 22 and are incorporated here.

As an additional point, the Office Action equates the control unit of claim 22 to be the primary storage controller 115. Applicants are now confused. Element 115 is the secondary storage controller in Figure 1, the primary storage controller being element 105. Applicants assume that the secondary storage controller 115 was the intended recitation as it is used in the rejection of the storage element. Notwithstanding all of the problems related to the resending element of the claim as discussed with claim 1 and which apply to claim 22, the Office Action then has the control unit, the secondary storage controller 115, resend the first message to the secondary site. Thus the Office Action has the control unit resending the message to itself. This is highly improper and clearly does not meet the claim language, so this is further reason claim 22 is allowable.

Claim 41

The arguments provided for claims 1 and 22 apply equally to claim 41 so that it is allowable.

Claims 28 and 47

The rejection of these claims is improper, so that the claims are allowable in their own right.

As argued with respect to claim 22, the Office Action in this rejection would have the control unit or second switch identifying itself and then sending itself the abort message. This is further improper correspondence between Crockett and the present claims so that the claims are allowable.

Conclusion

Based on the above remarks Applicants respectfully submit that all of the present claims are allowable. Reconsideration is respectfully requested.

Respectfully submitted,

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